

BOB -  
THESE ARE  
THE LOCKWOOD COMMENTS  
- Ray

location approximately 1/4 mile  
of NW section corner along access road  
and about 100 SW off road

# MONITOR WELL PRE-SPUD PROPOSAL

- 1) WELL NAME/NUMBER: BLM-13
- 2) PROPOSED LOCATION: (a) General (on or off-site) Off-site  
(attach map) Site Area BLM land \*1  
(b) Sect 3 Twnshp 21S Rng 3E SW 1/4 NE 1/4 NW 1/4
- 3) WELL PARAMETERS:  
(a) Est. total depth 310 (ft) (b) Est. ground elevation 4660 ft  
(c) Anticipated stratigraphy:  
\*2 Alluvium (Santa Fe Group) from 0 ' to 300 ' (depth)  
Orejon Andesite from 300 ? ' to TD ' (depth)  
from \_\_\_\_\_ ' to \_\_\_\_\_ ' (depth)  
(d) Anticipated water bearing horizon(s):  
Alluvium (Santa Fe Group) at 250-300 ' (depth)  
at \_\_\_\_\_ ' (depth)  
(e) Anticipated static water level 250 ' (depth)
- 4) WELL PURPOSE/JUSTIFICATION (attach maps and table if needed):  
Determine contaminant concentration and thickness of saturated  
alluvium in the alluvial aquifer near facility boundary.  
\_\_\_\_\_  
\_\_\_\_\_
- 5) PROPOSED DRILLING PARAMETERS:  
(a) Drilling method(s): (air/foam/mud rotary/auger/etc.)  
Mud Rotary \_\_\_\_\_ ' from 0 ' to 75 ' (depth)  
Air-foam Rotary \_\_\_\_\_ ' from 75 ' to TD ' (depth)  
\_\_\_\_\_ ' from \_\_\_\_\_ ' to \_\_\_\_\_ ' (depth)  
  
Air-foam method: "Quik-Foam" surfactant/water mixture used in  
conjunction with filtered compress air.  
  
Mud-rotary method: Bentonite mud/water mixture.

\*2 - see map of site. bedrock (andesite?) at 4525

2000  
4525  
135

4660  
300  
4360

(b) Lithology sampling - collect sample every:

5' intervals Method Grab from 0 ' to TD (depth)  
Core type 6" Dennison from 260 ' to 265 ' (depth)\*  
2" Christiansen from        ' to        ' (depth)  
2" Christiansen from        ' to        ' (depth)

\*core saturated alluvium near completion zone.

(c) Drilling rig type: Franks Rotary Rig for surface casing/Chicago  
Pneumatic rotary rig

(d) Anticipated drilling additive(s): None  
Water source NASA Quality checked by GC (method)

(e) Decontamination/Quality Assurance:  
Clean equipment by steam (method) prior to every well  
Clean tools by steam (method) prior to every well  
Other QA procedures Air filtering/monitoring, periodic steam  
cleaning of tools/sampling equipment when necessary

(f) Drilling company: Larjon Drilling  
address: P.O. Box 925, Las Cruces, New Mexico 88047  
Company representative: Larry Johnson Phone 505-526-8672

6) PROPOSED BOREHOLE GEOPHYSICS

(a) Survey type: GR - Neutron from 0 ' to TD (depth)  
Survey type: GR-Den-Res-Cal from 0 ' to TD (depth)  
Survey type: 16"-40" E-Log from W.L. ' to TD (depth)

(b) Geophysical company: Southwest Survey  
address: 4200 Skyline Drive, Farmington, NM 87401  
Company representative: Don Pearson Phone 505-325-8531

7) PROPOSED WELL COMPLETION DESIGN/MATERIALS

(a) Casing:	Material	Diameter	From	To	Comments
Temporary					
Surface	<u>steel</u>	<u>10"</u>	<u>0</u>	<u>75' est.</u>	
Blank (riser)	<u>stainless +</u>	<u>4"</u>	<u>0</u>	<u>+3'</u>	
Screen (10')	<u>stainless ++</u>	<u>4"</u>	<u>250</u>	<u>270</u>	<u>0.02"</u>
Completion Pipe	<u>stainless +</u>	<u>4"</u>	<u>230'</u>	<u>250</u>	
	<u>PVC-Sch 40**</u>	<u>4"</u>	<u>0</u>	<u>230'</u>	
Silt trap	<u>stainless +</u>	<u>4"</u>	<u>to 5' below screen</u>		
Protective Cap	<u>stainless +</u>	<u>4"</u>	<u>on top with lock</u>		

\*\* for shallow completions

+ Type 304, Schedule 5 stainless steel

++ Regular strength screen

- (b) Filter pack:
- |                     | <u>Primary</u>        | <u>Secondary</u>                   |
|---------------------|-----------------------|------------------------------------|
| Material type       | <u>Prewashed sand</u> | <u>Prewashed sand</u>              |
| Grain Size          | <u>8/20 grade</u>     | <u>16/40 grade</u>                 |
| Est. length (thick) | <u>20 feet</u>        | <u>2-3' above &amp; below 8/20</u> |
- (c) Seal - Upper: Bentonite Thickness 5 feet above upper 16/40 sand  
 Lower: Bentonite Thickness 5 feet below lower 16/40 sand
- (d) Grout - Material 5% Bentonite cement from above completion zone to the surface

8) PROPOSED WELL DEVELOPMENT

- (a) Development method Surge and pump  
 Equipment Pulling unit with bailer & submersible pump
- (b) Anticipated flow rate 5-15 gpm Duration until adequately devel.
- (c) Company providing service Larjon

9) WELL AUTHORIZATION

- (a) Proposed by Geoscience Consultants, Ltd.

- (b) Authorized Robert Mitchell NASA *Robert E. Mitchell* 12 Aug 88  
 (name) (representing) (signature)

